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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,847	03/24/2004	Timothy A. Feher	0815-040048	5469
28289	7590	08/24/2005	EXAMINER	
THE WEBB LAW FIRM, P.C. 700 KOPPERS BUILDING 436 SEVENTH AVENUE PITTSBURGH, PA 15219			HANAN, DEVIN J	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

**Office Action Summary**

Application No.

10/807,847

Applicant(s)

FEHER, TIMOTHY A.

Examiner

Devin Hanan

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 8-10, 13-15, 17, 20, 21 and 25 is/are rejected.
- 7) ☐ Claim(s) 4, 7, 11, 12, 16, 18, 19 and 22-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/24/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/20/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant claims the outside surface of the ring member is substantially planar, even though the surface in question is annular. Correction is required.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 8-10, 13, 17, 20-21 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Svihla et al. (U.S. Patent 6,896,479).

Svihla et al. discloses a impeller lock with a ring member (50) having a body defining a first engagement tab (portion of 50 engaging compressor wheel, 54) adapted to engage the impeller (42), a second engagement tab (56) adapted to engage the shaft

supporting the impeller (18), and a third engagement tab (66) adapted to engage a shaft sleeve (60) disposed about the shaft, when the ring member is positioned about the shaft and between the impeller (42) and shaft sleeve (60).

Regarding claim 2, Svihla et al. discloses the second engagement tab lies along a longitudinal axis of a transverse cross section through the ring member (tab engaging shaft 56 is along applicants axis L).

Regarding claim 3, Svihla et al. discloses the third engagement tab extends along an axis substantially perpendicular to the longitudinal axis (tab engaging shaft sleeve 60 is along applicants axis s1).

Regarding claim 5, Svihla et al. discloses the first engagement tab and the second engagement tab are formed on an inner side of the ring member (tabs 54 and 56 have a face along the inner side).

Regarding claim 8, Svihla et al. discloses and impeller lock with the shaft (18); the impeller (14) disposed about the shaft; a shaft sleeve (60) disposed about the shaft and spaced axially from the impeller; and

a ring member (50) disposed about the shaft between the impeller and shaft sleeve, the ring member having a body defining a first engagement tab (54) engaging the impeller, a second engagement tab (56) engaging the shaft, and a third engagement tab (66) engaging the shaft sleeve, the shaft sleeve securing the ring member to the shaft via the third engagement tab such that axial movement of the impeller on the shaft is limited during rotation of the impeller.

Regarding claim 9, Svihla et al. discloses the second engagement tab lies along a longitudinal axis of a transverse cross section through the ring member (tab engaging shaft 56 is along applicants axis L).

Regarding claim 10, Svihla et al. discloses the third engagement tab extends along an axis substantially perpendicular to the longitudinal axis (tab engaging shaft sleeve 60 is along applicants axis s1).

Regarding claim 13, Svihla et al. discloses the first engagement tab and second engagement tab are formed on an inner side of the ring member (tabs 54 and 56 have a face along the inner side).

Regarding claim 17, Svihla et al. discloses the opposing sides of the ring member abut the impeller and shaft sleeve (opposite sides of the ring 50 contact 14 and 60).

Regarding claim 20, Svihla et al. discloses the third engagement tab engages a groove in the shaft sleeve (tab 66 contacts shaft sleeve 60).

Regarding claim 21, Svihla et al. discloses an arrangement where the method of limiting axial movement of an impeller on a shaft includes

positioning a ring member (50) about the shaft (18) adjacent the impeller (14), the ring member having a body defining a first engagement tab (54) for engaging the impeller,

a second engagement tab (56) for engaging the shaft, and

a third engagement tab (66) for engaging a shaft sleeve (60) to be disposed about the shaft;

joining the ring member to the impeller and shaft (at 54 and 56 respectively), such that the first engagement tab engages the impeller and the second engagement tab engages the shaft; and

joining the shaft sleeve to the shaft (60 slides over shaft 18), such that the third engagement tab engages the shaft sleeve, the shaft sleeve securing the ring member to the shaft via the third engagement tab such that axial movement of the impeller on the shaft is limited during operation of the impeller.

Regarding claim 25, Svihla et al. discloses the third engagement tab engages a groove in the shaft sleeve (tab 66 contacts shaft sleeve 60).

***Allowable Subject Matter***

Claim 26 is allowed.

Claims 4, 7, 11-12, 16, 18-19 and 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable.

Claims 6 and 14-15 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Prior Art***

The patent to Fleury et al. was cited for its teaching of a ring (thrust collar spacer 56), a shaft sleeve (thrust bearing 70), an impeller 14 and a shaft 16. The thrust collar spacer has tabs to engage the three other components.

The patent to Pennig is cited for its teaching of a three tabbed ring (4) contacting a shaft sleeve (8), an impeller (1), and a shaft (6).

The patent to James is cited for its teaching of a three tabbed ring (14) contacting an impeller (12), a shaft (26), and a shaft sleeve (24).

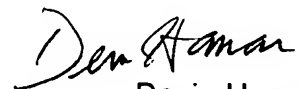
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Hanan whose telephone number is 571-272-6089. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on 571-272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Art Unit 3745



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8/22/05